

WE CLAIM:

- 100-200-300
1. A method for treating alopecia or promoting hair growth in an animal, which comprises 5 administering to said animal an effective amount of a pipecolic acid derivative.
 2. The method of claim 1, wherein the pipecolic acid derivative has an affinity for an FKBP-type 10 immunophilin.
 3. The method of claim 2, wherein the FKBP-type immunophilin is FKBP-12.
 4. The method of claim 1, wherein the pipecolic acid derivative is immunosuppressive. 15
 5. The method of claim 1, wherein the pipecolic acid derivative is non-immunosuppressive. 20
 6. The method of claim 1, wherein the pipecolic acid derivative is Way-124,666.
 7. The method of claim 1, wherein the pipecolic acid derivative is rapamycin. 25
 8. The method of claim 1, wherein the pipecolic acid derivative is Rap-Pa.

9. The method of claim 1, wherein the pipecolic acid derivative is SLB-506.

10. The method of claim 1, wherein the pipecolic acid derivative is selected from the group consisting of:

4-(4-methoxyphenyl)butyl (2S)-1-[2-(3,4,5-trimethoxyphenyl)acetyl]hexahydro-2-pyridinecarboxylate;

10 4-(4-methoxyphenyl)butyl (2S)-1-[2-(3,4,5-trimethoxyphenyl)acryloyl]hexahydro-2-pyridinecarboxylate;

15 4-(4-methoxyphenyl)butyl (2S)-1-[2-(3,4,5-trimethoxyphenyl)propanoyl]hexahydro-2-pyridinecarboxylate;

4-(4-methoxyphenyl)butyl (2S)-1-[2-oxo-2-(3,4,5-trimethoxyphenyl)acetyl]hexahydro-2-pyridinecarboxylate;

20 3-cyclohexylpropyl (2S)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;

3-phenylpropyl (2S)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;

25 3-(3,4,5-trimethoxyphenyl)propyl (2S)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;

(1R)-2,2-dimethyl-1-phenethyl-3-butenyl (2S)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;

- (1*R*) -1,3-diphenylpropyl (2*S*) -1-(3,3-dimethyl-2-oxopentanoyl) hexahydro-2-pyridinecarboxylate;
- 5 (1*R*) -1-cyclohexyl-3-phenylpropyl (2*S*) -1-(3,3-dimethyl-2-oxopentanoyl) hexahydro-2-pyridinecarboxylate;
- (1*S*) -1,3-diphenylpropyl (2*S*) -1-(3,3-dimethyl-2-oxopentanoyl) hexahydro-2-pyridinecarboxylate;
- 10 (1*S*) -1-cyclohexyl-3-phenylpropyl (2*S*) -1-(3,3-dimethyl-2-oxopentanoyl) hexahydro-2-pyridinecarboxylate;
- (22*aS*) -15,15-dimethylperhydropyrido[2,1-c] [1,9,4]dioxazacyclonadecine-1,12,16,17-tetraone;
- 15 (24*aS*) -17,17-dimethylperhydropyrido[2,1-c] [1,9,4]dioxazacycloheicosine-1,14,18,19-tetraone;
- ethyl 1-(2-oxo-3-phenylpropanoyl)-2-piperidinecarboxylate;
- ethyl 1-pyruvoyl-2-piperidinecarboxylate;
- ethyl 1-(2-oxobutanoyl)-2-piperidinecarboxylate;
- 20 ethyl 1-(3-methyl-2-oxobutanoyl)-2-piperidinecarboxylate;
- ethyl 1-(4-methyl-2-oxopentanoyl)-2-piperidinecarboxylate;
- ethyl 1-(3,3-dimethyl-2-oxobutanoyl)-2-piperidinecarboxylate;
- 25 ethyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
- 4-[2-(ethyloxycarbonyl)piperidino]-2,2-dimethyl-3,4-dioxobutyl acetate;

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- ethyl 1-[2-(2-hydroxytetrahydro-2H-2-pyranyl)-2-oxoacetyl]-2-piperidinecarboxylate;
- ethyl 1-[2-(2-methoxytetrahydro-2H-2-pyranyl)-2-oxoacetyl]-2-piperidinecarboxylate;
- 5 ethyl 1-[2-(1-hydroxycyclohexyl)-2-oxoacetyl]-2-piperidinecarboxylate;
- ethyl 1-[2-(1-methoxycyclohexyl)-2-oxoacetyl]-2-piperidinecarboxylate;
- 10 ethyl 1-(2-cyclohexyl-2-oxoacetyl)-2-piperidinecarboxylate;
- ethyl 1-(2-oxo-2-piperidinoacetyl)-2-piperidinecarboxylate;
- ethyl 1-[2-(3,4-dihydro-2H-6-pyranyl)-2-oxoacetyl]-2-piperidinecarboxylate;
- 15 ethyl 1-(2-oxo-2-phenylacetyl)-2-piperidinecarboxylate;
- ethyl 1-(4-methyl-2-oxo-1-thioxopentyl)-2-piperidinecarboxylate;
- 3-phenylpropyl 1-(2-hydroxy-3,3-dimethylpentanoyl)-2-piperidinecarboxylate;
- (1R)-1-phenyl-3-(3,4,5-trimethoxyphenyl)propyl 1-(3,3-dimethylbutanoyl)-2-piperidinecarboxylate;
- (1R)-1,3-diphenylpropyl 1-(benzylsulfonyl)-2-piperidinecarboxylate;
- 25 3-(3,4,5-trimethoxyphenyl)propyl 1-(benzylsulfonyl)-2-piperidinecarboxylate;
- 1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-

tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylic acid;
methyl 1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

isopropyl 1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

benzyl 1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

1-phenylethyl 1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

(Z)-3-phenyl-2-propenyl 1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

3-(3,4-dimethoxyphenyl)propyl 1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-

methyltetrahydro-2*H*-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

5 *N*2 - b e n z y l - 1 - (2 - [(2 R , 3 R , 6 S) - 6 -
 [(2 S , 3 E , 5 E , 7 E , 9 S , 11 R) - 2 , 13 - dimethoxy - 3 , 9 , 11 - trimethyl -
 12 - o x o - 3 , 5 , 7 - tridecatrienyl] - 2 - hydroxy - 3 -
 methyltetrahydro-2*H*-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

10 *N*2 - (3 - phenylpropyl) - 1 - (2 - [(2 R , 3 R , 6 S) - 6 -
 [(2 S , 3 E , 5 E , 7 E , 9 S , 11 R) - 2 , 13 - dimethoxy - 3 , 9 , 11 - trimethyl -
 12 - o x o - 3 , 5 , 7 - tridecatrienyl] - 2 - hydroxy - 3 -
 methyltetrahydro-2*H*-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

15 (*E*) - 3 - (3 , 4 - dichlorophenyl) - 2 - propenyl 1 - (3 , 3 -
 dimethyl - 2 - oxopentanoyl) - 2 - piperidinecarboxylate;
 (*E*) - 3 - (3 , 4 , 5 - trimethoxyphenyl) - 2 - propenyl 1 - (3 , 3 -
 dimethyl - 2 - oxopentanoyl) - 2 - piperidinecarboxylate;
 (*E*) - 3 - phenyl - 2 - propenyl 1 - (3 , 3 - dimethyl - 2 -
 oxopentanoyl) - 2 - piperidinecarboxylate;

20 (*E*) - 3 - ((3 - (2 , 5 - dimethoxy) - phenylpropyl) phenyl) - 2 -
 propenyl 1 - (3 , 3 - dimethyl - 2 - oxopentanoyl) - 2 -
 piperidinecarboxylate;

 (*E*) - 3 - (1 , 3 - benzodioxol - 5 - yl) - 2 - propenyl 1 - (3 , 3 -
 dimethyl - 2 - oxopentanoyl) - 2 - piperidinecarboxylate;

25 4 - (4 - methoxyphenyl) butyl 1 - (2 - o x o - 2 -
 phenylacetyl) - 2 - piperidinecarboxylate;

 3 - phenylpropyl 1 - (2 - o x o - 2 - phenylacetyl) - 2 -
 piperidinecarboxylate;

 3 - (3 - pyridyl) propyl 1 - (2 - o x o - 2 - phenylacetyl) - 2 -

- piperidinecarboxylate;
- 3 - (3 - pyridyl) propyl 1 - (3 , 3 - dimethyl - 2 -
oxopentanoyl) - 2 - piperidinecarboxylate;
- 4 - phenyl - 1 - (3 - phenylpropyl) butyl 1 - (3 , 3 - dimethyl -
5 2 - oxopentanoyl) - 2 - piperidinecarboxylate;
- 4 - (4 - methoxyphenyl) butyl 1 - (3 , 3 - dimethyl - 2 -
oxopentanoyl) - 2 - piperidinecarboxylate;
- 1 - (4 - methoxyphenethyl) - 4 - phenylbutyl 1 - (3 , 3 -
dimethyl - 2 - oxopentanoyl) - 2 - piperidinecarboxylate;
- 10 3 - (2 , 5 - dimethoxyphenyl) propyl 1 - (3 , 3 - dimethyl - 2 -
oxopentanoyl) - 2 - piperidinecarboxylate;
- 3 - (1 , 3 - benzodioxol - 5 - yl) propyl 1 - (3 , 3 - dimethyl - 2 -
oxopentanoyl) - 2 - piperidinecarboxylate;
- 15 1 - phenethyl - 3 - phenylpropyl 1 - (3 , 3 - dimethyl - 2 -
oxopentanoyl) - 2 - piperidinecarboxylate;
- 4 - (4 - methoxyphenyl) butyl 1 - (2 - cyclohexyl - 2 -
oxoacetyl) - 2 - piperidinecarboxylate;
- 3 - cyclohexylpropyl 1 - (2 - cyclohexyl - 2 - oxoacetyl) -
2 - piperidinecarboxylate;
- 20 3 - phenylpropyl 1 - (2 - cyclohexyl - 2 - oxoacetyl) - 2 -
piperidinecarboxylate;
- 3 - cyclohexylpropyl 1 - (3 , 3 - dimethyl - 2 -
oxobutanoyl) - 2 - piperidinecarboxylate;
- 3 - phenylpropyl 1 - (3 , 3 - dimethyl - 2 - oxobutanoyl) - 2 -
25 piperidinecarboxylate;
- 4 - (4 - methoxyphenyl) butyl 1 - (3 , 3 - dimethyl - 2 -
oxobutanoyl) - 2 - piperidinecarboxylate;
- 4 - phenyl - 1 - (3 - phenylpropyl) butyl 1 - (3 , 3 - dimethyl -

2-oxobutanoyl)-2-piperidinecarboxylate; and
pharmaceutically acceptable salts, esters, and
solvates thereof.

Sub A2 5 11. A pharmaceutical composition which comprises:

- (i) an effective amount of a piperolic acid derivative for treating alopecia or promoting hair growth in an animal; and
10 (ii) a pharmaceutically acceptable carrier.

Sub A2 15 12. The pharmaceutical composition of claim 11,
wherein the piperolic acid derivative has an affinity
for an FKBP-type immunophilin.

15 13. The pharmaceutical composition of claim 12,
wherein the FKBP-type immunophilin is FKBP-12.

Sub A3 20 14. The pharmaceutical composition of claim 11,
wherein the piperolic acid derivative is
immunosuppressive.

25 15. The pharmaceutical composition of claim 11,
wherein the piperolic acid derivative is non-
immunosuppressive.

Sub A3 16. The pharmaceutical composition of claim 11,
wherein the piperolic acid derivative is Way-124,666.

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17. The pharmaceutical composition of claim 11,
wherein the pipecolic acid derivative is rapamycin.

18. The pharmaceutical composition of claim 11,
5 wherein the pipecolic acid derivative is Rap-Pa.

19. The pharmaceutical composition of claim 11,
wherein the pipecolic acid derivative is SLB-506.

10 20. The pharmaceutical composition of claim 11,
Compound
wherein the ~~pipecolic acid derivative~~ is selected from
the group consisting of:

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15 4-(4-methoxyphenyl)butyl (2S)-1-[2-(3,4,5-trimethoxyphenyl)acetyl]hexahydro-2-pyridinecarboxylate;

4-(4-methoxyphenyl)butyl (2S)-1-[2-(3,4,5-trimethoxyphenyl)acryloyl]hexahydro-2-pyridinecarboxylate;

20 4-(4-methoxyphenyl)butyl (2S)-1-[2-(3,4,5-trimethoxyphenyl)propanoyl]hexahydro-2-pyridinecarboxylate;

4-(4-methoxyphenyl)butyl (2S)-1-[2-oxo-2-(3,4,5-trimethoxyphenyl)acetyl]hexahydro-2-pyridinecarboxylate;

25 3-cyclohexylpropyl (2S)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;

3-phenylpropyl (2S)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;

- 3-(3,4,5-trimethoxyphenyl)propyl (2*S*)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;
- 5 (1*R*)-2,2-dimethyl-1-phenethyl-3-butenyl (2*S*)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;
- (1*R*)-1,3-diphenylpropyl (2*S*)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;
- 10 (1*R*)-1-cyclohexyl-3-phenylpropyl (2*S*)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;
- (1*S*)-1,3-diphenylpropyl (2*S*)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;
- 15 (1*S*)-1-cyclohexyl-3-phenylpropyl (2*S*)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;
- (22*aS*)-15,15-dimethylperhydropyrido[2,1-c][1,9,4]dioxazacyclononadecine-1,12,16,17-tetraone;
- 20 (24*aS*)-17,17-dimethylperhydropyrido[2,1-c][1,9,4]dioxazacycloheicosine-1,14,18,19-tetraone;
- ethyl 1-(2-oxo-3-phenylpropanoyl)-2-piperidinecarboxylate;
- ethyl 1-pyruvoyl-2-piperidinecarboxylate;
- ethyl 1-(2-oxobutanoyl)-2-piperidinecarboxylate;
- 25 ethyl 1-(3-methyl-2-oxobutanoyl)-2-piperidinecarboxylate;
- ethyl 1-(4-methyl-2-oxopentanoyl)-2-piperidinecarboxylate;

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- ethyl 1-(3,3-dimethyl-2-oxobutanyl)-2-piperidinecarboxylate;
- ethyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
- 5 4-[2-(ethyloxycarbonyl)piperidino]-2,2-dimethyl-3,4-dioxobutyl acetate;
- ethyl 1-[2-(2-hydroxytetrahydro-2H-2-pyranyl)-2-oxoacetyl]-2-piperidinecarboxylate;
- 10 ethyl 1-[2-(2-methoxytetrahydro-2H-2-pyranyl)-2-oxoacetyl]-2-piperidinecarboxylate;
- ethyl 1-[2-(1-hydroxycyclohexyl)-2-oxoacetyl]-2-piperidinecarboxylate;
- 15 ethyl 1-[2-(1-methoxycyclohexyl)-2-oxoacetyl]-2-piperidinecarboxylate;
- ethyl 1-(2-cyclohexyl-2-oxoacetyl)-2-piperidinecarboxylate;
- ethyl 1-(2-oxo-2-piperidinoacetyl)-2-piperidinecarboxylate;
- 20 ethyl 1-[2-(3,4-dihydro-2H-6-pyranyl)-2-oxoacetyl]-2-piperidinecarboxylate;
- ethyl 1-(2-oxo-2-phenylacetyl)-2-piperidinecarboxylate;
- ethyl 1-(4-methyl-2-oxo-1-thioxopentyl)-2-piperidinecarboxylate;
- 25 3-phenylpropyl 1-(2-hydroxy-3,3-dimethylpentanoyl)-2-piperidinecarboxylate;
(1R)-1-phenyl-3-(3,4,5-trimethoxyphenyl)propyl 1-(3,3-dimethylbutanoyl)-2-piperidinecarboxylate;

(1*R*) -1,3-diphenylpropyl 1-(benzylsulfonyl)-2-piperidinecarboxylate;

3-(3,4,5-trimethoxyphenyl)propyl 1-(benzylsulfonyl)-2-piperidinecarboxylate;

5 1-(2-[(2*R*,3*R*,6*S*)-6-[(2*S*,3*E*,5*E*,7*E*,9*S*,11*R*)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2*H*-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylic acid;

methyl 1-(2-[(2*R*,3*R*,6*S*)-6-[(2*S*,3*E*,5*E*,7*E*,9*S*,11*R*)-10 2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2*H*-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

isopropyl 1-(2-[(2*R*,3*R*,6*S*)-6-[(2*S*,3*E*,5*E*,7*E*,9*S*,11*R*)-15 2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2*H*-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

benzyl 1-(2-[(2*R*,3*R*,6*S*)-6-[(2*S*,3*E*,5*E*,7*E*,9*S*,11*R*)-20 2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2*H*-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

1-phenylethyl 1-(2-[(2*R*,3*R*,6*S*)-6-[(2*S*,3*E*,5*E*,7*E*,9*S*,11*R*)-25 2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2*H*-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

(*Z*)-3-phenyl-2-propenyl 1-(2-[(2*R*,3*R*,6*S*)-6-[(2*S*,3*E*,5*E*,7*E*,9*S*,11*R*)-2,13-dimethoxy-3,9,11-trimethyl-

- 12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;
- 3-(3,4-dimethoxyphenyl)propyl 1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;
- N2-benzyl-1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;
- N2-(3-phenylpropyl)-1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;
- (E)-3-(3,4-dichlorophenyl)-2-propenyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
- (E)-3-(3,4,5-trimethoxyphenyl)-2-propenyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
- (E)-3-phenyl-2-propenyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
- (E)-3-((3-(2,5-dimethoxy)-phenylpropyl)phenyl)-2-propenyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
- (E)-3-(1,3-benzodioxol-5-yl)-2-propenyl 1-(3,3-

- dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
4-(4-methoxyphenyl)butyl 1-(2-oxo-2-phenylacetyl)-2-piperidinecarboxylate;
3-phenylpropyl 1-(2-oxo-2-phenylacetyl)-2-piperidinecarboxylate;
5 3-(3-pyridyl)propyl 1-(2-oxo-2-phenylacetyl)-2-piperidinecarboxylate;
3-(3-pyridyl)propyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
10 4-phenyl-1-(3-phenylpropyl)butyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
4-(4-methoxyphenyl)butyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
1-(4-methoxyphenethyl)-4-phenylbutyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
15 1-(4-methoxyphenethyl)-4-phenylbutyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
3-(2,5-dimethoxyphenyl)propyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
3-(1,3-benzodioxol-5-yl)propyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
20 1-phenethyl-3-phenylpropyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;
4-(4-methoxyphenyl)butyl 1-(2-cyclohexyl-2-oxoacetyl)-2-piperidinecarboxylate;
3-cyclohexylpropyl 1-(2-cyclohexyl-2-oxoacetyl)-2-piperidinecarboxylate;
25 3-phenylpropyl 1-(2-cyclohexyl-2-oxoacetyl)-2-piperidinecarboxylate;
3-cyclohexylpropyl 1-(3,3-dimethyl-2-

oxobutanoyl)-2-piperidinecarboxylate;

3-phenylpropyl 1-(3,3-dimethyl-2-oxobutanoyl)-2-piperidinecarboxylate;

4-(4-methoxyphenyl)butyl 1-(3,3-dimethyl-2-oxobutanoyl)-2-piperidinecarboxylate; *and*

4-phenyl-1-(3-phenylpropyl)butyl 1-(3,3-dimethyl-2-oxobutanoyl)-2-piperidinecarboxylate; *or* *a*

pharmaceutically acceptable salts, *esters*, *and* solvates thereof.